

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 89-103
NPDES NO. CA0037826

AMENDING WASTE DISCHARGE REQUIREMENTS FOR:

RODEO SANITARY DISTRICT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Rodeo Sanitary District, hereinafter called the discharger, by application dated March 14, 1989, has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollution Discharge Elimination System.
2. The Discharger presently discharges an average dry weather flow of about 0.9 million gallons per day (MGD) from its activated sludge treatment plant, which has a dry weather design capacity of 1.14 MGD. The plant treats domestic wastewater collected by, and from within the service area of, the Rodeo Sanitary District. The treated wastewater is discharged into San Pablo Bay, a water of the State and of the United States, through a submerged diffuser about 3600 feet off-shore at a depth of about 18 feet below mean lower low water, (latitude 38 deg., 03 min., 06 sec.; longitude 122 deg., 15 min., 55 sec.), which is used jointly by Rodeo and the cities of Pinole and Hercules. An in-house plant capacity study conducted in 1988 concluded that the plant has sufficient capacity to treat flows at full build out of the service area.
3. The discharge is presently governed by Waste Discharge Requirements by Order 84-39, which allows discharge into San Pablo Bay.
4. There exist viable shellfish beds in San Pablo Bay that could be affected by the discharge of wastewater. To protect the shellfish beds the Board has required, and will continue to require, that the wastewater receive an initial dilution of at least 45:1 in the receiving water.
5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 16, 1986. The Basin Plan contains water quality objectives for San Pablo Bay and contiguous water. The Basin Plan also contains new effluent limits for metals, phenols, and poly-aromatic hydrocarbons that are to be incorporated into all new NPDES permits.

6. The beneficial uses of San Pablo Bay and contiguous water bodies are:

- Industrial Service Supply
- Navigation
- Contact and Non-contact Water Recreation
- Commercial and Sport Fishing
- Wildlife and Estuarine Habitat
- Preservation of Rare and Endangered Species
- Fish Migration and Spawning

7. An Operation and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual should be kept updated to reflect significant changes in facilities or activities.
8. This Order serves as a NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
9. The discharger and interested agencies and persons have been notified of the Board's intent to amend requirements for the discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.
10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any part of the collection system (including pump stations) tributary to the plant is prohibited.
2. The average dry weather flow shall not exceed 1.14 mgd in any twelve month period. The average shall be determined over three consecutive months.
3. Discharge at any point at which the wastewater does not

receive an initial dilution of at least 45:1 is prohibited.

B. Effluent Limitations

1. Effluent discharged shall not exceed the following limits:

<u>Constituent</u>	<u>Units</u>	<u>30 Day Average</u>	<u>7 Day Average</u>	<u>Maximum Daily</u>	<u>Instant. Maximum</u>
a. Settleable Matter	ml/l/hr	0.1	--	--	0.2
b. BOD ₅	mg/l	30	45	60	--
c. Total Suspended Solids	mg/l	30	45	60	--
d. Oil & Grease	mg/l	10	--	20	--
e. Total Chlorine Residual (1)	mg/l	--	--	--	0.0

(1) Requirement defined below the limit of detection in standard test methods.

<u>Constituent</u>	<u>Units</u>	<u>Daily Average</u>
Arsenic	ug/l	200
Cadmium	ug/l	30
Chromium (1)	ug/l	110
Copper	ug/l	200
Cyanide	ug/l	25
Lead	ug/l	56
Mercury	ug/l	1
Nickel	ug/l	71
Silver	ug/l	23
Zinc	ug/l	580
Phenols	ug/l	500
PAHs (2)	ug/l	150

(1) Total Chromium or Chromium (VI)

(2) As identified using EPA Method 610. The detection limit and amount detected for each chemical identified using that method should be reported.

2. The arithmetic mean of the biochemical oxygen demand (5 day) and suspended solids, by weight, for effluent samples

collected in a period of 30 consecutive calendar days shall not exceed 15% of the arithmetic mean of the respective values, by weight, for influent samples collected during the same period (85% removal).

3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0
4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based upon the ten most recent consecutive samples.
5. The running median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 240 coliform organisms per 100 millimeters. Any single sample shall not exceed 10,000 MPN/100 ml.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam.
 - b. Bottom deposits or aquatic growth.
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels.
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste will not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved Oxygen
7.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.

b. Dissolved Sulfide

0.1 mg/l maximum

c. pH

Variation from natural ambient pH by more than 0.2 pH units.

d. Un-ionized ammonia

0.025 mg.l as N Annual Median

0.4 mg/l as N maximum

3. The discharger shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Provisions

1. The requirements prescribed by this Order supercede the requirements prescribed by Order No. 84-39. Order No. 84-39 is hereby rescinded.
2. Where concentration limitations in ug/l or mg/l are contained in this permit, the following mass emission limitation shall apply:

Mass Emission Limit in lbs/day = Concentration Limit in mg/l x 8.34 x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.
4. The discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop an/or implement a contingency plan will be basis for considering

such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

5. The discharger shall comply with the Self-Monitoring Program (consisting of Parts A and B) as adopted by the Board.
6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December, 1986.
7. This Order expires June 21, 1994. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
8. This Order shall serve as a National Pollution Discharge Elimination Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by The California Regional Water Quality Control Board, San Francisco Bay Region, on June 21, 1989.



Steven R. Ritchie
Executive Officer

Attachments:

- 1) Standard Provisions and Reporting Requirements, December, 1986
- 2) Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

RODEO SANITARY DISTRICT

CONTRA COSTA COUNTY

NPDES NO. CAA0037826

ORDER NO. 89-103

CONSISTS OF

PART A, DATED DECEMBER 1986

AND

PART B

June 21, 1989

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 89-103
SELF MONITORING PROGRAM, PART B, FOR:

RODEO SANITARY DISTRICT
RODEO, CONTRA COSTA COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

<u>Station</u>	<u>Description</u>
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities between the point of discharge or mixing with Pinole wastewater and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D.
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.
E-001-S	At any point in the treatment and disposal facilities following dechlorination.

C. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 through P-"n"	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the location of these stations will accompany each self monitoring report).

D. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
O-1 through 0-"n"	Bypass or overflows from manholes, pump stations, and collection systems.

E. MISCELLANEOUS REPORTING

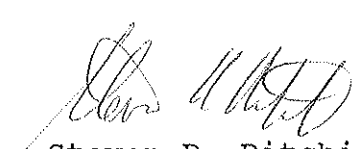
1. Date, time, duration, location, and estimated volume of each bypass or overflow shall be included in each monthly report.

II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given as Table 1.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharger requirements established in Regional Board Order No. 89-103.
2. Was adopted by the Board on June 21, 1989.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or written request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.


Steven R. Ritchie
Executive Officer

Effective Date 6/21/89

Attachments: Table 1

TABLE I
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1)

Sampling Station	A-001		E-001		E-001-D		E-001-S		P	O			
	G	C-24	G	C-24	Cont	G	Cont	C-24	O	O			
Flow Rate (mgd)		D ✓			D ✓								
BOD, 5-day, 20° C, or COD (mg/l & kg/day)		W ✓		W ✓									
Chlorine Residual & Dosage (mg/l & kg/day)					Cont	or 2H							
Settleable Matter (ml/1-hr. & cu. ft./day)			D										
Total Suspended Matter (mg/l & kg/day)		W		W									
Oil & Grease (mg/l & kg/day)			W (2)										
Coliform (Total or Fecal) (MPN/100 ml) per req't						3/W							
Fish Toxicity, 96-hr. TL ₅₀ % Survival in undiluted waste								M					
Ammonia Nitrogen (mg/l & kg/day)				M									
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)			D										
Dissolved Oxygen (mg/l and % Saturation)			D										
Temperature (°C)			D										
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)			W										
Arsenic (mg/l & kg/day)				M									
Cadmium (mg/l & kg/day)				M									
Chromium, Total (mg/l & kg/day)				M									
Copper (mg/l & kg/day)				M									
Cyanide (mg/l & kg/day)				M									
Silver (mg/l & kg/day)				M									
Lead (mg/l & kg/day)				M									

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001		E-001-D		E-001-S		P	O			
TYPE OF SAMPLE	G	C-24	G	C-24	Cont	G	Cont	C-24	O	O			
Mercury (mg/l & kg/day)				M									
Nickel (mg/l & kg/day)				M									
Zinc (mg/l & kg/day)				M									
PHENOLIC COMPOUNDS (mg/l & kg/day)				M									
All Applicable Standard Observations									W	E			
Bottom Sediment Analyses and Observations													
Poly-Aromatic Hydrocarbons (mg/l & kg/day)				M									
Chlorine residual (3) (mg/l)							Cont	or 2H					

LEGEND FOR TABLE

TYPES OF SAMPLES

- G = grab sample
- C-24 = composite sample - 24-hour
- C-X = composite sample - X hours
(used when discharge does not
continue for 24-hour period)
- Cont = continuous sampling
- DI = depth-integrated sample
- BS = bottom sediment sample
- O = observation

TYPES OF STATIONS

- I = intake and/or water supply stations
- A = treatment facility influent stations
- E = waste effluent stations
- C = receiving water stations
- P = treatment facilities perimeter stations
- L = basin and/or pond levee stations
- B = bottom sediment stations
- G = groundwater stations

FREQUENCY OF SAMPLING

- | | | |
|---------------------|--|---------------------|
| E = each occurrence | 2/H = twice per hour | 2H = every 2 hours |
| H = once each hour | 2/W = 2 days per week | 2D = every 2 days |
| D = once each day | 5/W = 5 days per week | 2W = every 2 weeks |
| W = once each week | 2/M = 2 days per month | 3M = every 3 months |
| M = once each month | 2/Y = once in March and
once in September | Cont = continuous |
| Y = once each year | Q = quarterly, once in
March, June, Sept.
and December | |

FOOTNOTES FOR TABLE I

- (1) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:
 1. Composite sample for BOD, total suspended solids, oil and grease.
 2. Grab sample for Coliform (Total and Fecal), Settleable matter,
- (2) Oil and grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. A composite shall be made using equal volumes of each grab. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.

Contra Costa County

LEGEND

- | | | | |
|--|---------------------------|--|------------------------------|
| | FREEWAYS (LIMITED ACCESS) | | INTERSTATE HIGHWAY NUMBER |
| | MAIN HIGHWAYS | | U.S. HIGHWAY NUMBER |
| | OTHER PAVED ROADS | | STATE HIGHWAY NUMBER |
| | SURFACE NOT INDICATED | | COUNTY ROAD NUMBER |
| | UNDER CONSTRUCTION | | CALIF. HIGHWAY PATROL OFFICE |
| | *SCHOOLS IN COUNTY | | GOLF COURSE |

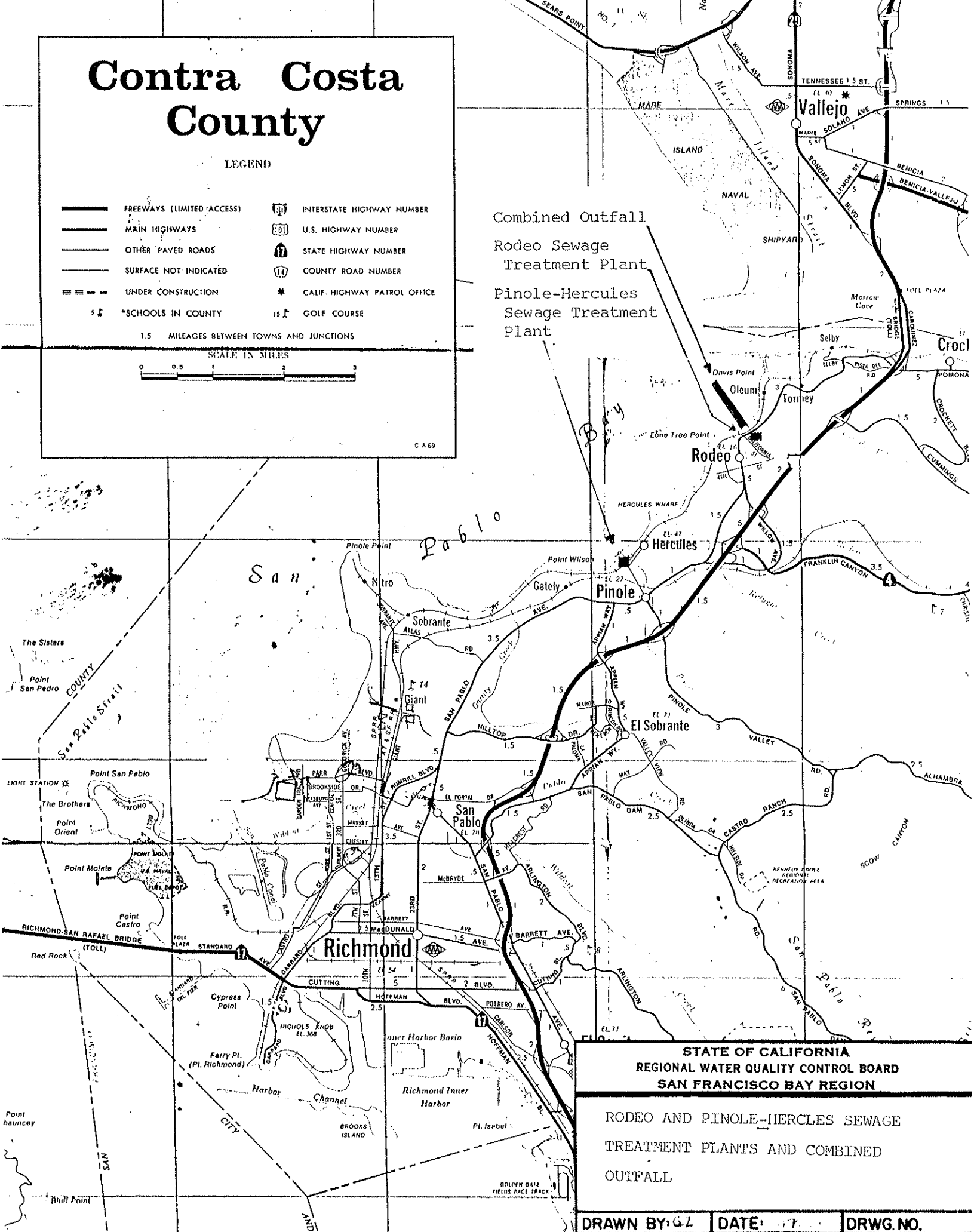
1.5 MILEAGES BETWEEN TOWNS AND JUNCTIONS

SCALE IN MILES



C 69

Combined Outfall
Rodeo Sewage
Treatment Plant
Pinole-Hercules
Sewage Treatment Plant



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RODEO AND PINOLE-HERCULES SEWAGE
TREATMENT PLANTS AND COMBINED
OUTFALL

DRAWN BY: GZ DATE: 7/77 DRWG. NO.